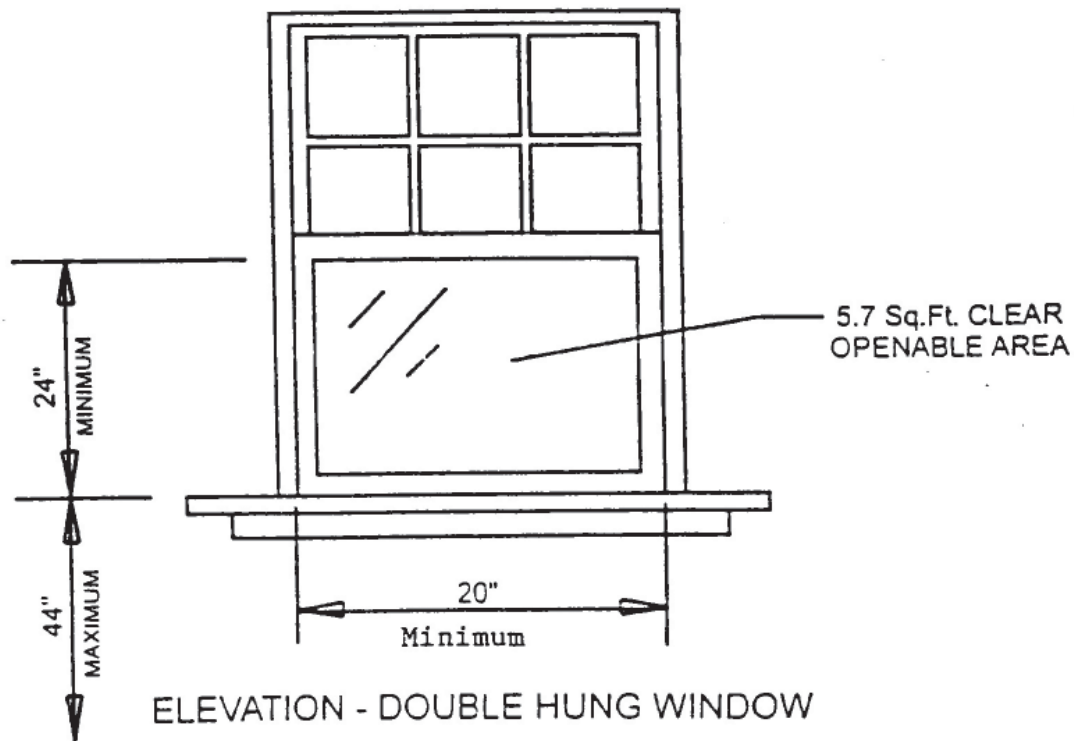


Emergency Escape and Rescue Openings

Openings that can serve for emergency escape and rescue in the event of a fire and are required in all sleeping rooms and habitable basements of a dwelling. The 2000 IRC, requires new habitable basements to be provided with such an opening, even if there are no sleeping rooms located in the basement. Section R310.2, 2000 IRC, contains the required dimensions for the window well and requirements for the ladder/stair equipment necessary for emergency escape openings that are below grade.

Required minimum net clear opening dimensions are given in the R310 subsections. It should be noted that minimum required width and minimum required height of the openings are such that the design of a single window could not have both minimums and still have the required opening area (an opening 20 inches by 24 inches does not provide the required opening area of 5.7 square feet or 821 square inches). The minimum required net clear opening must be accomplished by the normal operation of the window, section R310.1, 2000 IRC. This means that emergency escape and rescue openings removable-sash windows are not permitted to serve as the required emergency escape opening unless the minimum opening can be achieved through the normal operation of the window (without removing the sash).

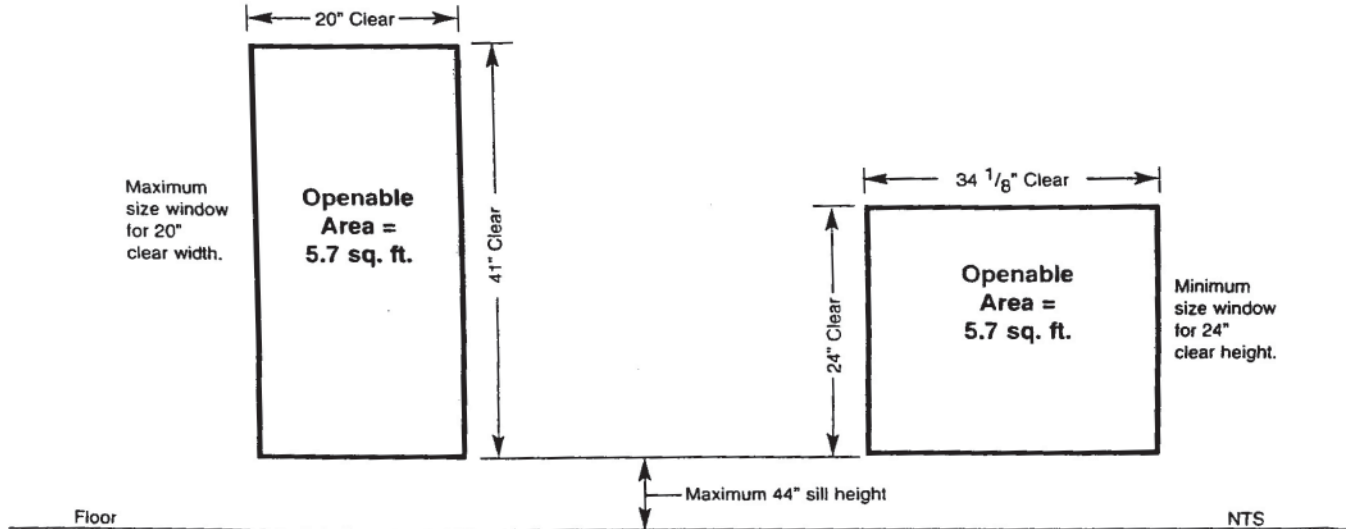
Example of Clear Opening Dimensions



Code Corner

Emergency Escape and Rescue Openings IRC R310

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Because so many fire deaths occur when occupants of residential buildings are asleep at the time of a fire, the *International Residential Code* (IRC) requires that:

- basements with habitable space and
- every sleeping room below the fourth story

shall have at least one operable window or exterior door opening approved for emergency escape and rescue. IRC Section R310.1.4 requires rescue openings to be operational from the inside of the room without the use of keys or tools, and Section R303.5 requires that glazed openings open directly onto a street or public alley, or a yard or court located on the same lot as the building.

- The net clear openable area shall be no less than 5.7 square feet (see exceptions for grade floor openings and windows wells).
- In addition to the above requirement, the net clear openable height dimension shall be a minimum of 24 inches. The net clear openable width dimension shall be a minimum of 20 inches. (Note: using both minimum figures will not obtain the required 5.7 square feet).
- The finished sill height shall not be more than 44 inches above the floor.

The chart below summarizes the minimum window dimensions that will achieve a 5.7 square-foot opening.

Minimum Width/Height Requirements for Emergency Escape and Rescue Windows (inches)

Width	20	20.5	21	21.5	22	22.5	23	23.5	24	24.5	25	25.5	26	26.5	27
Height	41	40	39.1	38.2	37.3	36.5	35.7	34.9	34.2	33.5	32.8	32.2	31.6	31	30.4

Width	27.5	28	28.5	29	29.5	30	30.5	31	31.5	32	32.5	33	33.5	34	34.2
Height	29.8	29.3	28.8	28.3	27.8	27.4	26.9	26.5	26.1	25.7	25.3	24.9	24.5	24.1	24